

THE UNITED STATES DEPARTMENT OF ENERGY/NATIONAL NUCLEAR SECURITY ADMINISTRATION HAS COMPLETED A FIVE-YEAR REVIEW OF THE BUILDING 854 OPERABLE UNIT AT LAWRENCE LIVERMORE NATIONAL LABORATORY'S SITE 300

The U.S. Department of Energy /National Nuclear Security Administration has completed the second Five-Year Review of its environmental cleanup of the Building 854 Operable Unit at Lawrence Livermore National Laboratory's Site 300.

THE REVIEW PROCESS

Superfund law requires that the protectiveness of cleanup actions be evaluated every five years when contaminants remain at the site above levels that allow unrestricted access. The purpose of the Five-Year Review is to evaluate the progress of the cleanup remedy towards achieving the site's cleanup objectives, and whether the remedy continues to be protective of human health and the environment.

The Five-Year Review report summarizes the nature and extent of contamination and describes the U.S. Department of Energy's progress in cleaning up the Building 854 Operable Unit. The U.S. Department of Energy's final Second Five-Year Review report for the Building 854 Operable Unit is now available to the public at the Laboratory's Environmental Repository in the Tracy Public Library, 20 East Eaton Avenue, Tracy, CA 95377 [telephone (209) 835-2221]; the Laboratory's Discovery Center, Greenville Road at East Gate Drive, Livermore, CA 94551, [telephone (925) 422-4599]; and online at <http://www-envirinfo.llnl.gov/>.

SITE HISTORY

Lawrence Livermore National Laboratory's Site 300 is a U.S. Department of Energy experimental test facility operated by Lawrence Livermore National Security, LLC. Site 300 is used for the research, development, and testing of high explosive materials. Site 300 is located in the Altamont Hills between Livermore and Tracy, California. Site 300 was placed on the National Priorities List in 1992. The Building 854 Operable Unit is one of nine operable units at Site 300 where contaminants have been released to the environment from past operations. A Site-Wide Record of Decision was signed in 2008 that established the cleanup remedy and cleanup standards for the Building 854 Operable Unit. A previous Five-Year Review was completed in 2008. The Building 854 Operable Unit covers an area of approximately 1.5 square miles in the western portion of Site 300. Fifteen buildings were built in the Operable Unit between 1959 and 1970. The buildings in the Building 854 Operable Unit were used to test the stability of weapons and weapon components under various environmental conditions and mechanical and thermal stresses. Volatile organic compounds, perchlorate, and nitrate have been released to the environment from past operations.

CLEANUP OBJECTIVE

The selected remedy for the Building 854 Operable Unit includes: (1) monitoring ground water to evaluate the effectiveness of the remedy in achieving cleanup standards, and to ensure there is no impact to downgradient water-supply wells, (2) risk and hazard management including land use controls to prevent on-site workers and animal exposure to VOCs volatilizing from subsurface soil until risk and hazard are mitigated through active remediation and to protect the

integrity of the remedy, and (3) extracting and treating volatile organic compounds, perchlorate, and nitrate in ground water to mitigate unacceptable volatile organic compounds inhalation risk for onsite workers, prevent further impacts to ground water and offsite plume migration, and reduce contaminant concentrations in ground water to cleanup standards.

FIVE-YEAR REVIEW RESULTS

The remedy at the Building 854 OU currently protects human health and the environment in the short-term because there is no current exposure to site contamination and remedial treatment systems are effectively treating groundwater and soil vapor. Exposure pathways that could result in unacceptable risk to onsite workers are being controlled by the implementation of institutional controls, the Health and Safety Plan, and the Contingency Plan. The U.S. Department of Energy /National Nuclear Security Administration and the U.S. Environmental Protection Agency are working to ensure agreement on the long-term protectiveness at the Building 854 OU. Institutional controls have been implemented to prevent potential future exposure to contaminated media, and the remedy will reduce contaminant of concern concentrations to meet cleanup standards. The cleanup standards for Building 854 OU ground water are drinking water standards. Because drinking water standards do not differentiate between industrial and residential use, the ground water cleanup remedy will be protective under any land use scenario.

FOR MORE INFORMATION:

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